BEFORE THE
PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA

DOCKET NO. 2022-1-E

In the Matter of Annual Review of Base Rates for Increase in Fuel Costs for Duke Energy Progress, LLC	))))	**DIRECT TESTIMONY OF** **JASON MARTIN FOR** **DUKE ENERGY PROGRESS, LLC**

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jason D. Martin, and my business address is 40 West Broad Street, Suite 690, Greenville, SC 29601.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am Director of Strategy, Policy, and Strategic Investment for South Carolina at Duke Energy Corporation ("Duke Energy"). I am responsible for the development and execution of strategy and policy support related to distributed energy technology for Duke Energy's South Carolina retail franchises, including Duke Energy Progress, LLC ("DEP" or the "Company") and Duke Energy Carolinas, LLC ("DEC"). This includes evaluation of legislation and regulation, and implementation of customer programs such as those associated with Act 236, the South Carolina Distributed Energy Resource Act of 2014, and Act 62, the South Carolina Energy Freedom Act.

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I received a Bachelor of Science degree in Electrical and Computer Engineering at North Carolina State University. I have been employed at Duke Energy since 1987 working in the areas of Engineering, Customer Services, Large Account Management, and Distributed Energy Technologies.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. Yes. I testified before this Commission in DEC's 2018, 2019, 2020, and 2021 fuel costs proceedings in Docket Nos. 2018-3-E, 2019-3-E, 2020-3-E, and 2021-3-E, respectively. I also testified in DEP's 2019, 2020, and 2021 fuel costs proceedings in Docket Nos. 2019-1-E, 2020-1-E, and 2021-1-E, respectively.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide support for the Distributed Energy Resource Program ("DERP") costs that are incorporated into the proposed fuel factors prepared by Witness Harrington and to discuss the 11 components of the value for distributed energy resources ("DER") avoided cost contained in the net energy metering ("NEM") methodology approved by the Commission in Order No. 2015-194, issued in Docket No. 2014-246-E, and as updated in Order No. 2021-569, issued in Docket No. 2019-182-E. I will describe the nature of costs filed as well as any changes made to the DERP portfolio since the 2021 fuel proceeding and will address changes to the value of DER methodology.

Q. PLEASE DESCRIBE THE LEVELS OF SOLAR ADOPTION DEP HAS EXPERIENCED THROUGH COMPLIANCE WITH ACT 236.

A. Since January 1, 2015, DEP has seen measurable growth in solar adoption as a result of implementing the incentives and programs for compliance with Act 236 and the extension of incentives through Act 62. The results of the implementation are shown below in Table 1. The Company has encouraged solar adoption through the NEM incentive, Solar Rebate Program, and other DERP efforts discussed later in my testimony. As of March 2022, the Company has met the renewable generation goals under Act 236.

Table 1: DEP Solar Adoption by Implementing Act 236, as of March 1, 2022[1]

		ACT 236 Goal	Capacity Installed	% of Goal
Tier I	Utility Scale Solar (1MW – 10MW)	13	15	115%
Tier II	Customer Scale Solar (<1MW)[2]	13	9.4	1880%
	Small Scale Solar (<20kW)	3	12.5	416%

Notes
1. All values in MW-AC
2. Customer Scale Solar Goal is inclusive of Small Scale Solar Goal
3. Values are based upon Customer-Generator Projects receiving DER NEM Incentive as described in Order 2015-194.

Q. PLEASE DESCRIBE THE DERP COSTS THAT ARE INCLUDED IN THE REVIEW, ESTIMATED, AND BILLING PERIODS.

A. Pursuant to Commission Order No. 2015-515, the Company offers its customers a variety of programs to support solar development. As a result, the Company incurred DERP incremental and avoided costs totaling $4,960,692 in the period from March 1, 2021 through February 28, 2022 (the "review period"); anticipates incurring $1,713,709 during the period March 1, 2022 through June 30, 2022 (the "estimated period"); and projects to incur $4,831,378 in the period July 1, 2022 through June 30, 2023 (the "billing period").

These costs represent the avoided and incremental costs associated with the Company's approved DERP offerings, including 1) Purchased Power Agreements executed to fulfill the Company's utility-scale solar goals under Act 236; 2) Distributed Energy Resource NEM Incentive; 3) Solar Rebate Program; 4) Carrying Costs on Deferred Solar Rebate Amounts; 5) Shared Solar Program; 6) NEM Avoided Capacity Costs; 7) NEM Meter Costs; and 8) General and Administrative Expenses, including incremental labor costs as a direct result of DERP, IT and billing enhancements, and other administrative costs associated with delivering these new programs to customers. Table 2 is an itemization of actual and expected DERP costs.

Table 2: DEP DERP Cost Summary - Review, Estimated, and Billing Periods

Cost Type	Review Period 3/1/21-2/28/22	Forecast Period 3/1/22-6/30/22	Billing Period 7/1/22-6/30/23
DERP Incremental Costs			
Purchased Power Agreements	$ 52,465	$ 18,178	$ 40,855
DER NEM Incentive	2,218,157	699,971	2,094,964
Solar Rebate Program - Amortization	615,805	206,521	619,562
Solar Rebate Program - Carrying Costs	467,994	149,501	422,994
Shared Solar Program	48,199	16,700	37,531
NEM Avoided Capacity Costs	5,847	1,898	5,694
NEM Meter Costs	139,256	49,625	148,874
General and Administrative Expenses	127,203	29,602	88,293
Interest on under-collection due to cap	511	126	511
Total DER Incremental Costs	$ 3,675,438	$ 1,172,121	$ 3,459,278
DERP System Avoided Cost - Energy & Capacity			
Purchased Power Agreements	$ 1,187,564	$ 502,324	$ 1,269,717
Shared Solar Program	97,690	39,264	102,383
Total DERP Avoided Costs	$ 1,285,254	$ 541,588	$ 1,372,100
Total Incremental and Avoided Cost	**$ 4,960,692**	**$ 1,713,709**	**$ 4,831,378**

Sources
Incremental Costs: Harrington Exhibit 9 & 11
Avoided Costs: Harrington Exhibit 13 & 14

Q. PLEASE DESCRIBE THE COMPANY'S DER NEM INCENTIVE AND COSTS.

A. The DER NEM Incentive is essentially a credit available to eligible net energy metering customer-generators that enables the customer-generator to receive full retail rate compensation for each kilowatt-hour (kWh) generated by their solar facility. The DER NEM Incentive is recoverable by the Company and approximates the difference between (a) the value of a NEM Distributed Energy Resource, as computed using the methodology approved in Docket No. 2014-246-E and updated in Docket No. 2019-182-E, and (b) the utility's retail rate for that customer. Settling Parties in Docket No. 2014-246-E agreed that the DER NEM Incentive shall be treated as an incremental cost, as defined in S.C.

Code Ann. § 58-39-140, effectively socializing the cost of the DER NEM Incentive to all retail customers as a component of the utilities' respective DER programs.

Q. PLEASE DESCRIBE THE CUSTOMER PARTICIPATION IN NET ENERGY METERING THROUGH THE DER NEM INCENTIVE.

A. Participation in net energy metering has increased measurably since 2015 as a result of the decrease in the acquisition costs of solar, in addition to the availability of the Company's Solar Rebate Program and the NEM Incentive. On May 16, 2019, Act 62 was signed into law, which removed the 2% NEM capacity limit and extended provisions of NEM pursuant to Order No. 2015-194, requiring the Company make NEM available to all customer-generators who apply after May 16, 2019 and before June 1, 2021. Table 3 details total NEM participation as of February 28, 2022.

Table 3: DEP Net Energy Metering – DERP Participation

Rider RNM	As of 02/28/22	
	Number of Applications	Capacity in MW (AC)
Applications Approved[1]	**1855**	**22.31**
Applications Withdrawn	18	0.17
In Process and Installed	**1,816**	**21.90**
Installed	1,650	20.42
In Process	166	1.48

1. Applications approved through 05/31/21. These applicants will receive the DER NEM Incentive Value.

Q. HAS THE GENERAL ASSEMBLY ENACTED LEGISLATION THAT WILL PHASE OUT THE NEM INCENTIVE PROGRAM?

A. Yes. In S.C. Code Ann. § 58-40-20(B), the General Assembly required electric utilities to make the NEM incentive available to customer-generators who apply before June 1, 2021, and allows the customer-generators to continue NEM "as provided for in Commission Order No. 2015-194 until May 31, 2029."

Q. WHAT PROGRAM WILL CUSTOMER-GENERATORS WHO APPLY ON OR AFTER JUNE 1, 2021 BE APPLYING FOR?

A. Customer-generators who apply on or after June 1, 2021, but before January 1, 2022, were placed on the Solar Choice Metering Interim Rider, which was approved by the Commission in Docket No. 2020-265-E. Customer-generators who apply on or after January 1, 2022 will be placed on the Solar Choice Permanent Tariff, which was also approved by the Commission in Docket No. 2020-265-E.

Q. EVEN THOUGH THE NEM INCENTIVE PROGRAM WILL BE PHASED OUT PURSUANT TO ACT 62, WHY IS IT NECESSARY TO CONSIDER THE COSTS OF THE NEM PROGRAM IN THIS PROCEEDING?

A. Because the Company's current NEM incentive program established under Act 236 and extended under Act 62 will continue providing the incentive until May 31, 2029, for customer-generators applying before June 1, 2021, it is necessary to consider the costs of the NEM program as part of the Company's fuel cost proceedings during the pendency of that program.

Q. PLEASE DESCRIBE THE TRANSITION TO SOLAR CHOICE PURSUANT TO ACT 62.

A. Customer-generators who applied for net metering on or before May 31, 2021 will be included in the customer participation of the DER NEM Incentive as those projects become operational. Table 4, below, depicts the number of customers (and the associated kilowatts (kW-AC)) who have or are expected to energize their solar facilities and participate in net metering.

Table 4: DEP Net Energy Metering Capacity Connected - Review, Estimated, and Billing[1]

Rider RNM	Review Period	Estimated Period	Billing Period
	3/1/21-2/28/22	3/1/22-6/30/22	7/1/22-6/30/23
Capacity[2] (kW-AC)	21,138	21,190	21,747
# of Customers	1,738	1,758	1,818

Notes:
1. These values represent cumulative capacity and number of customers on the last day of each period and include upon Customer-Generator Projects receiving DER NEM Incentive as approved in Order 2015-194.
2. Capacity presented as nameplate

Q. COMMISSION ORDERS 2015-194 AND 2021-569 REQUIRE THAT THE VALUE OF NEM DISTRIBUTED ENERGY RESOURCES IS COMPUTED ANNUALLY. WHAT IS THE 2022 VALUE AND HOW DID YOU ARRIVE AT THAT NUMBER?

A. Through applying the avoided cost methodology and rates recently approved by the Commission in Order Nos. 2019-881(A) and 2020-315(A) (issued on January 2, 2020 and April 17, 2020, respectively), as well as updated input assumptions, the Company has updated the 2022 value of NEM Distributed Energy Resources to $0.02581 per kWh for Schedules RES and R-TOUD, $0.02596 for Schedule SGS, and $0.02675 for all other schedules.

Q. WHAT ARE THE COMPONENTS OF THE VALUE OF NEM DER?

A. Table 5, below, lists the components used to determine the value of NEM Distributed Energy Resources and their value. The calculation is consistent with the methodology approved in Order No. 2015-194 and updated in Order No. 2021-569. The methodology of value for NEM Distributed Energy Resources was also affirmed in Order 2021-569 issued in Docket 2019-182-E, except the long run values are changed from the 2021 DEP SC fuel filing to reflect a 20-year avoided energy and capacity which is included in Table 5.

Table 5 includes all categories of potential benefits or costs to the utility system that are capable of quantification or possible quantification in the future.

Table 5: Value of NEM Distributed Energy Resource, by Component

Components of NEM Distributed Energy Resource Value	Component Value ($/kWh) Residential PV[1]	Component Value ($/kWh) SGS PV[1]	Component Value ($/kWh) Large PV[1]
Marginal Energy Cost	$0.024689	$0.024706	$0.024707
Marginal Capacity Cost	$0.001753	$0.001725	$0.001750
Ancillary Services	($0.000933)	($0.000762)	$0.000000
Transmission and Distribution ("T&D") Capacity	$0.000000	$0.000000	$0.000000
Avoided Criteria Pollutants[2]	$0.000027	$0.000026	$0.000024
Avoided CO2 Emission Cost (currently zero)	$0.000000	$0.000000	$0.000000
Fuel Hedge[3]	$0.000000	$0.000000	$0.000000
Utility Integration & Interconnection Costs	$0.000000	$0.000000	$0.000000
Utility Administration Costs	$0.000000	$0.000000	$0.000000
Environmental Costs	$0.000000	$0.000000	$0.000000
Subtotal	**$0.025536**	**$0.025695**	**$0.026481**
Line Losses[4]	$0.000270	$0.000270	$0.000269
Total Value NEM Distributed Energy Resource	**$0.025806**	**$0.025965**	**$0.026750**

1 "Residential PV" refers to a load shape reflecting generation installed by a residential customer. "SGS PV" refers to a load shape reflecting generation installed by a small commercial/industrial customer served under Small General Service Schedule SGS. "Large PV" refers to a load shape reflecting generation installed by a customer with higher consumption requirements and applies to all other nonresidential schedules. For the first time, the Company has separated the values for residential customers ("Residential PV") and small commercial/industrial customers ("SGS PV") as a result of available actual metered solar load profile data for the residential class. The Company continues to utilize third-party solar load profile data for non-residential customers.

2 Avoided Criteria Pollutants reflects NOx and SOx that have been separately identified from approved marginal energy costs.

3 Pursuant to the Settlement Agreement reached in DEP's 2016 annual fuel proceeding (Docket No. 2016-3-E), the Company has calculated the hedge value and determined that no fuel hedge exists; therefore, the value is zero.

4 Line loss factors are 1.281% for marginal energy and 1.857% for marginal capacity per DEP's updated 2018 line loss analysis based upon 2020 cost of service.

Q. HOW DOES THE COMPANY PLAN TO CONSIDER MARGINAL LINE LOSSES ASSOCIATED WITH CUSTOMER GENERATORS?

A. In Order No. 2021-569, the Commission directed the Company to develop a plan to acquire the capability to determine the marginal line losses associated with customer-generator facilities. The Company filed a response outlining the plan on November 17, 2021. As detailed in that filing, the Company plans to add to its existing average loss methodology to account for marginal line losses. The Company is presently developing the tools and

resources of the new marginal line loss modeling methodology. However, because of the complexity of this additional analysis, the Company may elect to continue to use average line losses for some or all elements of the line losses in the value stack for distributed energy resource generation until the accuracy of the new marginal line loss modeling methodology and its results can be validated through repeated analysis. In addition, the proposed methodology is based on the data and tools that are expected to be available but may need to be modified when the analysis is performed.

Q. PLEASE EXPLAIN WHY SOME OF THE COMPONENTS ARE VALUED AT ZERO.

A. The Company has identified the benefits or costs of the following components of the Value of NEM DER as zero: transmission and distribution capacity cost, avoided CO2 emissions cost, fuel hedge, utility integration and interconnection cost, utility administration, and environmental costs. The transmission and distribution capacity cost is determined by deferring or requiring investment in transmission and distribution assets as a result of NEM adoption. The density of NEM solar capacity on a circuit and circuit peak conditions for summer and winter periods impact the determination for circuit investments. As the penetration of NEM solar increases and development of the analysis tools that were outlined in the November 17, 2021 filing in Docket 2019-382-E are completed, a value other than zero may be assigned to this component; however for the current period, the Company has assigned a value of zero. For the fuel hedge component, based upon the Settlement Agreement reached in DEP's 2016 annual fuel proceeding (Docket No. 2016-3-E), the Company has not experienced an increase or decrease in administrative cost with hedging fuel due to the impact of NEM adoption; therefore, the value is zero. The value

for avoided CO2 emissions remains zero as currently no cost for CO2 emissions has been adopted by South Carolina. Currently, the utility integration and interconnection cost for NEM still remains zero; however, the Company continues to evaluate the impacts of increased NEM integration to the utility system. The interconnection cost for an individual NEM project is captured in the fees associated with the Interconnection Process. For the utility administration costs value, no additional cost/benefit burden has been borne by the Company due to costs for administrating NEM programs, and as such, this value remains at zero. The environmental cost is currently fully captured in the avoided energy component, which supports a zero value. The Company continues to evaluate these components and the cost or benefit impact related to NEM adoption to the system.

Q. DOES DEP ROUTINELY REVIEW THE COST AND BENEFIT COMPONENTS OF THE VALUE OF NEM OF DER CALCULATION?

A. Yes. As stated earlier, the Company has updated the Value of NEM DER calculation based on the recently-approved avoided cost methodology and avoided cost rates in Orders 2019-881(A) and 2020-315(A). Additionally, as the amount of installed customer-owned generation increases, it is important that the Company continually monitors its impact to ensure safe and reliable grid operations. Through this monitoring and analysis of the impact of NEM DER on the Company's system, new costs and benefits are identified. Those identified costs and benefits of NEM DER are then incorporated into the Value of NEM DER calculation in the next year's fuel case.

Q. PLEASE DESCRIBE EXHIBIT 1 TO YOUR TESTIMONY.

A. Martin Exhibit 1 provides a redline of the Company's proposed 2022 net metering rider, Rider RNM, illustrating changes from the previous tariff. The only substantive change to the tariff is the updated value of NEM Distributed Energy Resources.

Q. PLEASE DESCRIBE THE STATUS OF THE COMPANY'S SOLAR REBATE PROGRAM.

A. The Company's solar rebate program was implemented to assist the Company in meeting its Customer Scale solar requirement (facilities 1,000 kW and less) under Act 236. The Company has made available two solar rebate programs for its customers: the Small Solar Rebate Program and the Large Solar Rebate Program. Both provide a qualified customer with a rebate of $1.00 per watt-dc, and $1.50 per watt-dc for non-profit organizations, upon successful energization of a solar facility that conforms to the sizing requirements outlined in Act 236. As shown in Table 6, below, interest in the solar rebate, as measured by solar rebate applications received, has exceeded available capacity per Act 236 goals.

Table 6: DEP Solar Rebate Program Capacity Status, as of March 1, 2022

Solar Facility Size	ACT 236 Goal	Rebate Applications Received	Rebate Applications Accepted	Rebate Applications Paid
"Small" - Up to 20kW-AC	At least 3,250 kW	3,495 kW	3,330 kW	85%
"Large" - 20.01kW-AC - 1,000kW-AC	9,750 kW	12,250 kW	9,670 kW	
Total	13,000 kW	15,745 kW	13,000 kW	

*All Values in kW-AC

As a result of receiving applications in excess of available capacity, the Company created a waiting list for customers to be utilized as additional capacity becomes available due to a project withdrawing or no longer meeting the criteria to receive a rebate.

Q. PLEASE DESCRIBE THE DERP COSTS ASSOCIATED WITH THE COMPANY'S SOLAR REBATE PROGRAM.

A. The incremental costs associated with the Solar Rebate Program and included in this filing are the amortization of rebates paid, carrying costs on deferred amounts, and general and administrative expenses required to manage the program, as shown in Table 2. These values in Table 2 reflect rebate amortization amounts and carrying cost amounts which have been adjusted as prescribed in Order No. 2019-341.

Q. PLEASE PROVIDE AN OVERVIEW AND STATUS OF THE COMPANY'S SHARED SOLAR PROGRAM.

A. The Company's Shared Solar Program, which launched in July 2018, is a means for retail customers to subscribe to and share in the economic benefits of one renewable energy facility. Customers are able to apply to the program using an online application which shows real-time capacity available in the program and assists them in determining their appropriate subscription size. Once enrolled, in addition to their regular energy bill, participants also pay a monthly shared solar subscription fee. That fee funds their share of supporting a centrally-located solar energy facility. In exchange, they receive a monthly energy credit from the Company equal to the amount of solar energy produced by their share of the solar facility. In order to increase accessibility to the program, DEP also offers a low-moderate income ("LMI") customer program, through which DEP will waive the application fee and initial subscription charge (a $120 value) for 200 LMI qualified customers. With the program fully subscribed, the Company maintains information on the website and provides a marketing campaign to solicit interest for customers that would like to join the waiting list on the program to have access to capacity should it become available.

The Company dedicated 1,000 kW of a Purchased Power Agreement (entered into pursuant to the utility-scale goals of Act 236) to the Shared Solar Program. Table 7 below, provides participation details for the program.

Table 7: DEP Shared Solar Program Status, as of March 1, 2022

Program Type	Total Available Capacity (kW-AC)	Number of Customers Subscribed	Total kW-AC Subscribed	% Subscribed
Standard Offering	600	80	600	100%
Low-Moderate Income (LMI)	400	200	400	100%

Q. WHAT IS THE CURRENT STATUS OF THE SHARED SOLAR PROGRAM UNDER ACT 236?

A. The Company has fully subscribed the Shared Solar program implemented under Act 236. The program adoption by customers was completed with filling the Low-Moderate Income portion of the program by implementing the changes approved by the PSC to provide more opportunity to LMI customers. For the LMI customers, a waiting list has been established in the event capacity becomes available within the LMI designated capacity. The outreach to all customers through various methods proved beneficial in promoting the program and soliciting participating customers.

Q. PLEASE DESCRIBE THE DERP COSTS ASSOCIATED WITH THE COMPANY'S SHARED SOLAR PROGRAM.

A. The cost associated with the Shared Solar Program, as set forth in Table 2 include the following incremental cost components: the amount of subsidy utilized to lower subscription fees for the program, general and administrative costs of the program, and costs of Shared Solar purchased power agreements in excess of avoided cost. Table 2 also

includes the following avoided costs: avoided cost amounts paid for the purchase of power from participants in the program.

Q. PLEASE DESCRIBE THE RESULTS OF THE COMPANY'S REQUEST FOR PROPOSALS OF UTILITY-SCALE SOLAR FACILITIES AND THE ASSOCIATED DERP COSTS.

A. The Company has executed two PPAs totaling 15,000 kW (AC), with 1,000 kW dedicated to the Shared Solar Program. The first facility became operational in December 2017 and the second facility became operational in March 2020. Table 2 sets forth the incremental and avoided costs associated with these PPAs.

Q. PLEASE DESCRIBE THE COMPANY'S EFFORTS TO COMMUNICATE WITH STAKEHOLDERS ABOUT DER PROGRAMS AND PROGRAM CHANGES IN THE PAST YEAR.

A. Since the Commission approved the Company's DER Program application in 2015, the Company has utilized various communication and outreach tools to ensure that solar stakeholders and retail customers have access to information about the Company's programs and are able to communicate with representatives from the Company about the programs. For example, the Company has: (1) provided a summary of net metering adoption on the Duke Energy website; (2) continued marketing campaigns for the Shared Solar Program in support of maintaining a waitlist for capacity that may become available; and (3) provided call center support to retail customers and solar installers via its Renewable Service Center, which is staffed with approximately twenty professionals. The Company uses these outreach efforts as well as regular communication to keep

stakeholders and retail customers informed of the status of the program offerings and other developments related to its DER programs.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

Duke Energy Progress, LLC
(South Carolina)

SC Rider RNM-1211
Supersedes Rider RNM-1110

RENEWABLE NET METERING RIDER RNM-1211

AVAILABILITY

This Rider is closed to new participants on and after June 1, 2021. Customers requesting net energy metered (NEM) service on and after June 1, 2021 will receive service in accordance with the NEM tariff(s) in effect at that time.

Participants and subsequent owners of the customer-generator facility (collectively, "Participants") who applied for service under this Rider prior to May 16, 2019 shall remain eligible for standard service under this Rider until December 31, 2025. Participants who applied for service under this Rider on and after May 16, 2019 and prior to June 1, 2021 shall remain eligible for standard service under this Rider until May 31, 2029. Participants will be given the option to transfer to Schedule R-STOU (Residential Service, Solar Time-of-Use) and Rider RSC (Residential Solar Choice) beginning January 1, 2022. If Participants elect not to transfer to Schedule R-STOU and Rider RSC by the applicable sunset date of December 31, 2025 or May 31, 2029, they may continue to receive service under this Rider and their applicable rate schedule subject to the following provisions:

1. Any volumetric price increase after their applicable sunset date will be placed in a non- bypassable charge based on the estimated total solar energy production of their system size.
2. Participants will be assessed a monthly minimum bill set at $10 more than the Basic Facilities Charge at that time.

Monthly Excess Energy will be credited at the avoided cost rate in effect at that time, rather than carry forward to the next billing month.

Available to residential and nonresidential Customers receiving concurrent service from Company, on a metered rate schedule, except as indicated under General Provisions. A customer-generator is a owner, operator, or lessee of an electric generation unit that generates or discharges electricity from a renewable energy resource, including an energy storage device configured to receive electrical charge solely from an onsite renewable energy resource. The renewable NEM generation, which includes a solar photovoltaic; solar thermal; wind powered; hydroelectric; geothermal; tidal or wave energy; recycling resource; hydrogen fueled or combined heat and power derived from renewable resources; or biomass fueled generation source of energy, is installed on Customer's side of the delivery point, for Customer's own use, interconnected with and operated in parallel with Company's system. The generation must be located at a single premise owned, operated, leased or otherwise controlled by Customer.

GENERAL PROVISIONS

1. To qualify for service under this Rider, Customer must comply with all applicable interconnection standards and must provide, in writing, the Nameplate Capacity of Customer's installed renewable generation system. Any subsequent change to the Nameplate Capacity must be provided by Customer to Company in writing by no later than 60 days following the change.

2. To qualify for service under this Rider, a residential customer may be served on an approved residential rate schedule, but may not be served under Rider NM. The Nameplate Capacity of Customer's installed generation system and equipment must not exceed 20 kW AC.

3. To qualify for service under this Rider, a nonresidential customer may be served on an approved general service rate schedule, but may not be served on Schedules SGS-TES, TSS, TFS, LGS-RTP, LGS-CUR-TOU, CSG, CSE, GS, SFLS, SGS-TOU-CLR or Rider NM. The Nameplate Capacity of Customer's installed renewable generation system and equipment must not exceed 1,000 kW AC or

100% of Customer's contract demand which shall approximate Customer's maximum expected demand.

4. If Customer is not the owner of the premises receiving electric service from Company, Company shall have the right to require that the owner of the premises give satisfactory written approval of Customer's request for service under this Rider.

5. All environmental attributes, including but not limited to "renewable energy certificates" (RECs), "renewable energy credits" or "green tags", associated with the generation system shall be conveyed to Company until billing of a Distributed Energy Resource Program Rider DERP Charge is discontinued on all customer bills. Customer certifies that the environmental attributes have not and will not be remarketed or otherwise resold for any purpose, including another distributed energy resource standard or voluntary purchase of renewable energy certificates in South Carolina or in any other state or country for the Contract Period and any successive contract periods thereto.

6. If the electricity supplied to Customer by Company exceeds the electricity delivered to the grid by the customer-generator during a monthly billing period, the customer-generator shall be billed for the net electricity in kilowatt hours (kWh) supplied by Company plus any demand or other charges under the applicable rate schedule or riders.

7. Electricity delivered to the grid by Customer's renewable generation that exceeds the electricity delivered by Company during a monthly billing period is defined as Excess Energy. When used in conjunction with a time of use schedule, the TOU periods shall be specified in the applicable schedule and any Excess Energy shall apply first with the Excess Energy generated On-Peak kWh offsetting On-peak usage and then offsetting Off-peak usage. Any excess Off-Peak kWh shall only apply against Off-peak kWh usage. Any Excess Energy not used in the current month to offset usage shall carry forward to the next billing month, except for Participants served under this Rider beyond the applicable sunset date of December 31, 2025 or May 31, 2029, for which Excess Energy will be credited at the end of each billing month.

8. Excess Energy shall be used to reduce electricity delivered and billed by Company during the current or a future month, except that for the March billing period any carry-over shall be compensated as described in the RATE paragraph below. In the event Company determines that it is necessary to increase the capacity of facilities beyond those required to serve Customer's electrical requirement or to install a dedicated transformer or other equipment to protect the safety and adequacy of electric service provided to other customers, Customer shall pay the estimated cost of the required transformer or other equipment above the estimated cost which Company would otherwise have normally incurred to serve Customer's electrical requirement, in advance of receiving service under this Rider.

9. The rates set forth herein are subject to Commission Order No. 2015-194, issued in Docket No. 2014-246-E pursuant to the terms of S.C. Code § 58-40-20(F)(4). Eligibility for this rate will terminate as set forth in that Order, and otherwise as specified above. The value of NEM generation eligible for this Rider shall be computed using the methodology contained in Commission Order No. 2015-194, in Docket No. 2014-246-E, and as updated in Commission Order No. 2021-569, in Docket No. 2019-182-E, and shall be updated annually by Company. The value of NEM generation for 20221 is $0.02581 ~~$0.02446~~ per kWh for Schedules RES and R-TOUD, $0.02596 ~~$0.02444~~ for Schedule SGS and $0.02675 ~~$0.02448~~ for all other schedules.

RATE

All provisions of the applicable schedule and other applicable riders will apply to service supplied under this Rider, except as modified herein. For any bill month during which the Energy Charges are a net credit, the respective Energy Charges for the month shall be zero. Credits shall not offset the Basic

Facilities Charge or the Demand Charge (if applicable). In addition to all charges in the applicable rate schedule for Customer's net electrical usage, the following credit may be applicable annually:

Credit for Excess Energy

If Customer has Excess Energy after offsetting usage as of the date of the March billing, Company shall pay Customer for the amount of the accumulated Excess Energy times a rate of $0.03360 per kWh, after which the amount of Excess Energy shall be set to zero.

Participants served under this Rider beyond the applicable sunset date of December 31, 2025 or May 31, 2029 will receive credit for Excess Energy for each billing month. These Participants will also be assessed a monthly non-bypassable charge based on their Nameplate Capacity for any volumetric price increase thereafter.

MINIMUM BILL

The monthly minimum bill for customers receiving service under this Rider shall be no less than Basic Facilities Charge from the applicable rate schedule and riders plus, if applicable, any of the following Charges: the Demand Charge, the Off-peak Excess Demand Charge, and the Extra Facilities Charge.

Participants served under this Rider beyond the applicable sunset date of December 31, 2025 or May 31, 2029 will be assessed a monthly minimum bill set at $10 more than the Basic Facilities Charge at that time. The minimum bill will be satisfied by the Basic Facilities Charge, the portion of the Customer's monthly volumetric energy charges specific to customer and distribution costs, and riders.

Bill credits for net excess energy are not included in the calculation of the minimum bill charge. Bill credits will reduce a Customer's total bill after the minimum bill charge has been applied.

METERING REQUIREMENTS

Company will furnish, install, own and maintain a billing meter to measure the kilowatt demand delivered by Company to Customer, and to measure the net kWh purchased by Customer or delivered to Company. For renewable generation capacity of 20 kW AC or less, the billing meter will be a single, bi- directional meter which records independently the net flow of electricity in each direction through the meter, unless Customer's overall electrical requirement merits a different meter. For larger renewable generation capacities, Company may elect to require two meters with 15-minute interval capabilities to separately record Customer's electrical consumption and the total generator output, which will be electronically netted for billing. Customer grants Company the right to install, operate, and monitor special equipment to measure Customer's generating system output, or any part thereof, and to obtain any other data necessary to determine the operating characteristics and effects of the installation. All metering shall be at a location that is readily accessible by Company.

SAFETY, INTERCONNECTION AND INSPECTION REQUIREMENTS

This Rider is only applicable for installed renewable generation systems and equipment that complies with and meets all safety, performance, interconnection, and reliability standards established by the Commission, the National Electric Code, the National Electrical Safety Code, the Institute of Electrical and Electronic Engineers, Underwriter's Laboratories, the Federal Energy Regulatory Commission and any local governing authorities. Customer must comply with all liability insurance requirements of the Interconnection Standard.

POWER FACTOR

Customer's renewable generation must be operated to maintain a 100% power factor, unless otherwise specified by Company. When the average monthly power factor of the power supplied by Customer to Company is other than 100%, the Low Power Factor Adjustment stated in Company's Service Regulations may be applicable. Company reserves the right to install facilities necessary for the measurement of power factor. Company will not install such equipment, nor charge a Low Power Factor Adjustment if the renewable generation system is less than 20 kW AC and uses an inverter.

CONTRACT PERIOD

Customer shall enter into a contract for service under this Rider for a minimum original term of one (1) year, and shall automatically renew thereafter, except that either party may terminate the contract after one year by giving at least sixty (60) days prior notice of such termination in writing.

Company reserves the right to terminate Customer's contract under this Rider at any time upon written notice to Customer in the event that Customer violates any of the terms or conditions of this Rider, or operates the renewable generation system and equipment in a manner which is detrimental to Company or any of its customers. In the event of early termination of a contract under this Rider, Customer will be required to pay Company for the costs due to such early termination, in accordance with Company's South Carolina Service Regulations.